L6 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN

AB The effect of measurement geometry on the detn. of the activity of solns. contg. 125I for use in brachytherapy applications has been investigated for 5 mL plastic syringes and 2 mL conical glass dose vials as a function of filling mass. New dial settings for the syringes over a filling mass range of 1 to 3 g have been detd. to be 497.+-.8 and 469.+-.8 (expanded, k=2, uncertainties) for the NIST Capintec CRC-12 and Capintec CRC-35R, resp., with any effect due to the filling mass lying within the uncertainty in the activity calibration. A filling mass effect was obsd. in the dose vials, causing a 10.5% redn. in the chamber response from a 2 g filling mass to 1 g. Dial settings at 2 g were exptl. found to be 143.+-.2 and 135.+-.2 (expanded uncertainties) for the NIST Capintec CRC-12 and Capintec CRC-35R, resp. The appropriate dial settings for the same vials with a 1 g filling mass were found to be 120.+-.2 and 114.+-.2 for CRC-12 and CRC-35R, resp. Differences of up to .+-.45% in the activity detn. were obsd. between values obtained with the manufacturer's recommended setting and the settings obtained exptl. for each specific geometry. Calibration factors were also detd. for a Vinten 671 Radionuclide Calibrator, giving values of 0.226.+-.0.009 pA.cntdot.MBq-1 and 0.231.+-.0.004 pA.cntdot.MBq-1 (expanded uncertainties), resp., for the 1 and 2 g dispensings. This study demonstrates that exptl. detd. calibration factors for the exact measurement geometry are necessary when measuring radionuclides in configurations other than the manufacturer's std. geometry, esp. when nuclides that emit low-energy radiations are involved.

AN 2002:525455 CAPLUS

DN 138:326501

TI Experimental investigation of dose calibrator response for 125I brachytherapy solutions contained in 5 mL plastic syringes and 2 mL conical glass v-vials as a function of filling mass

AU Zimmerman, B. E.; Cessna, J. T.; Dorton, J. A.

CS Physics Laboratory, National Institute of Standards and Technology, Gaithersburg, MD, 20899-8462, USA

SO Medical Physics (2002), 29(7), 1547-1555
CODEN: MPHYA6; ISSN: 0094-2405

PB American Institute of Physics

DT Journal

LA English

RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN

AB Iotrex is an aq. radiotherapy soln. contg. Na 3-(125I)iodo-4-hydroxybenzenesulfonate (125I-HBS), which is used as the radiation source for the brachytherapy of resected of brain tumor cavity margins with the GliaSite catheter. During routine clin. use of this brachytherapy applicator and radiation source, .apprx.0.1% of the afterloaded Iotrex will diffuse through the GliaSite balloon. The purpose was to assess the radiation doses to normal organs under routine clin. use of the GliaSite. 5 Groups of rats received intracerebral injections of an 131I-HBS soln. (131I used as a surrogate for 125I in the synthesis of 125I-HBS) with one group sacrificed at 15 min, 30 min, 1 h, 2 h and 4 h post-administration. Urine was collected and activity retention in numerous organs was measured. The biodistribution data were used to est. radiation doses to normal organs of the Ref. Adult Male and Female phantoms. Radioactivity was rapidly and completely cleared from the brain (98% cleared by 2 h) and total body (urinary clearance; 93% @ 2 h). No organ retained >0.7% of the radioactivity at 4 h. For 100% loss of the radiotherapy soln. from the balloon catheter (device failure), all organs would receive less than 100 mGy (10 rad), except the bladder wall (2800 mGy, 280 rad), uterus (130 mGy, 13 rad) and distal colon (270 mGy, 27 rad). Under normal conditions, all organ doses are 1000-fold lower (<3 mGy or 0.3 rad). Under routine clin. conditions, the radiation doses to normal organs are inconsequential. Should the max. clin. load of Iotrex (16.7 GBq of125I) be released intracerebrally, the radiation doses to all organs would be below the thresholds for deterministic effects.

AN 2001:35366 CAPLUS

DN 135:149233

TI Biodistribution and dosimetry of an aqueous solution containing sodium

3-(125I)iodo-4-hydroxybenzensulfonate (Iotrex) for brachytherapy of resected malignant brain tumors
AU Stubbs, James B.; Strickland, Alan D.; Frank, R. Keith; Simon, Jaime; McMillan, Kenneth; Williams, Jeffery A.
CS Proxima Therapeutics, Inc., Alpharetta, GA, 30005, USA
SO Cancer Biotherapy & Radiopharmaceuticals (2000), 15(6), 645-656
CODEN: CBRAFJ; ISSN: 1084-9785
PB Mary Ann Liebert, Inc.
DT Journal
LA English
RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN
AB The use of radioiodinated phenolic compds. contg. e.g., primary, secondary, quaternary amines, is described. The compd. is formulated and used in vivo in brachytherapy in an implantable catheter. In addn., due to the rapid renal clearance of these compds., they may be used to study renal function. A process to prep. these compds. is also disclosed. Tyramine 5 mg was mixed with pH 5 0.05M potassium biphthalate-NaOH buffer and transferred to an Iodo-Gen vial. N131I was added to the above mixt. and th percent activity bound to tyramine was 94. The biodistribution of the radiolabeled tyramine in various organs was detd.

AN 1999:783976 CAPLUS
DN 132:15685
TI Radioiodinated phenols for brachytherapy
IN Simon, Jaime; Frank, R. Keith; Strickland, Alan D.
PA Dow Chemical Co., USA
SO PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9962564	A1	19991209	WO 1999-US12161	19990601
W: AT, AU, BR, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HR, HU, IL, IN, JP, KR, LU, MX, NO, NZ, PT, RU, SE, SG, TR, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2334146	AA	19991209	CA 1999-2334146	19990601
AU 9946737	A1	19991220	AU 1999-46737	19990601
AU 755019	B2	20021128		
BR 9911611	A	20010206	BR 1999-11611	19990601
EP 1083937	A1	20010321	EP 1999-930136	19990601
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 6315979	B1	20011113	US 1999-323359	19990601
JP 2002516883	T2	20020611	JP 2000-551818	19990601
US 6506363	B1	20030114	US 2000-671982	20000928
US 6506364	B1	20030114	US 2000-672541	20000928
US 2002081662	A1	20020627	US 2001-22885	20011218
PRAI US 1998-87769P	P	19980602		
US 1999-323359	A3	19990601		
WO 1999-US12161	W	19990601		
US 2000-671982	A3	20000928		

OS MARPAT 132:15685
RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

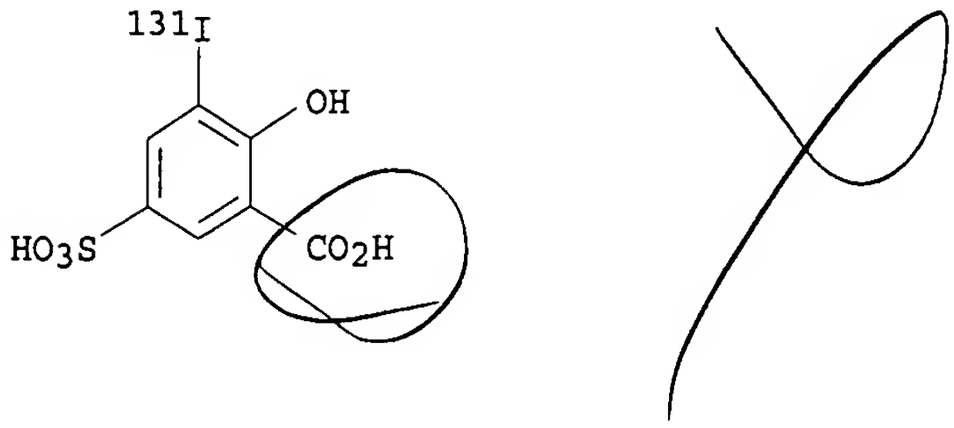
L6 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN
AB Four arom. carboxylic acids, sulfanilic acid, and 9 arom. Sulfonamides were labeled with 131I and were tested for pharmacokinetics in rats. Introduction of a sulfonic acid group into the salicylic acid mol. increased blood clearance and renal elimination. 3-(Iodo-131)-5-sulfosalicylic acid was eliminated 10 times faster than 3-(iodo-131)-salicylic acid [53662-24-1]. O-(iodo-131)-phenaceturic acid [53729-25-2] was eliminated most rapidly from the blood. All of the

tested carboxylic acids were accumulated in the liver and kidneys; kidney accumulation of 3-(iodo-131)-5-sulfosalicyclic acid was predominant. The sulfonamides were slowly cleared from the blood and were accumulated by the liver. 3-(Iodo-131)-sulfanilic acid [53662-25-2] was rapidly eliminated from the blood and was accumulated predominantly by the liver. This compd. may be useful for renal diagnosis.

AN 1975:453382 CAPLUS
DN 83:53382
TI Pharamcokinetics of new radioiodine-labeled aromatic acids
AU Deckart, H.; Schmidt, H. E.; Herzmann, H.; Blottner, A.
CS Nuklearmed. Klin., Staedt. Klin. Berlin-Buch, Berlin-Buch, Ger. Dem. Rep.
SO Radiobiologia, Radiotherapia (1974), 15(1), 27-38
CODEN: RDBGAT; ISSN: 0033-8184
DT Journal
LA German

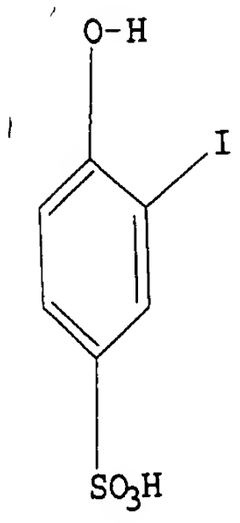
=>

L6 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN
IT **53860-22-3**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(pharmacokinetics of)
RN 53860-22-3 CAPLUS
CN Benzoic acid, 2-hydroxy-3-(iodo-131I)-5-sulfo- (9CI) (CA INDEX NAME)



=>

```
=> D L4
L4 HAS NO ANSWERS
L4                  STR
```



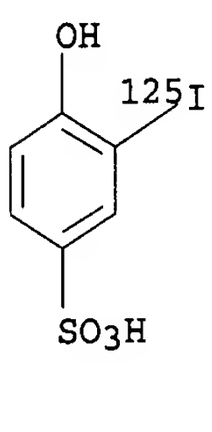
Structure attributes must be viewed using STN Express query preparation.

```
=> D HIST

     (FILE 'HOME' ENTERED AT 13:23:53 ON 05 SEP 2003)

     FILE 'REGISTRY' ENTERED AT 13:24:02 ON 05 SEP 2003
L1                 STRUCTURE UPLOADED
L2              0 S L1
L3              0 S L1 FULL
L4                 STRUCTURE UPLOADED
L5              2 S L4 FULL

     FILE 'CAPLUS' ENTERED AT 13:26:16 ON 05 SEP 2003
L6              4 S L5

=>
```

=> S E3
L1 1 IOTREX/CN

=> D

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN
RN 251635-10-6 REGISTRY
CN Benzenesulfonic acid, 4-hydroxy-3-(iodo-125I)-, monosodium salt (9CI) (CA INDEX NAME)
OTHER NAMES:
CN **Iotrex**
CN Sodium 3-(125I)iodo-4-hydroxybenzensulfonate
MF C6 H5 I O4 S . Na
SR CA
LC STN Files: BIOSIS, CA, CAPLUS, TOXCENTER, USPATFULL



3 REFERENCES IN FILE CA (1937 TO DATE)
3 REFERENCES IN FILE CAPLUS (1937 TO DATE)

=>

2 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2003 ACS on STN

AB The effect of measurement geometry on the detn. of the activity of solns. contg. 125I for use in brachytherapy applications has been investigated for 5 mL plastic syringes and 2 mL conical glass dose vials as a function of filling mass. New dial settings for the syringes over a filling mass range of 1 to 3 g have been detd. to be 497.+-.8 and 469.+-.8 (expanded, k=2, uncertainties) for the NIST Capintec CRC-12 and Capintec CRC-35R, resp., with any effect due to the filling mass lying within the uncertainty in the activity calibration. A filling mass effect was obsd. in the dose vials, causing a 10.5% redn. in the chamber response from a 2 g filling mass to 1 g. Dial settings at 2 g were exptl. found to be 143.+-.2 and 135.+-.2 (expanded uncertainties) for the NIST Capintec CRC-12 and Capintec CRC-35R, resp. The appropriate dial settings for the same vials with a 1 g filling mass were found to be 120.+-.2 and 114.+-.2 for CRC-12 and CRC-35R, resp. Differences of up to .+-.45% in the activity detn. were obsd. between values obtained with the manufacturer's recommended setting and the settings obtained exptl. for each specific geometry. Calibration factors were also detd. for a Vinten 671 Radionuclide Calibrator, giving values of 0.226.+-.0.009 pA.cntdot.MBq-1 and 0.231.+-.0.004 pA.cntdot.MBq-1 (expanded uncertainties), resp., for the 1 and 2 g dispensings. This study demonstrates that exptl. detd. calibration factors for the exact measurement geometry are necessary when measuring radionuclides in configurations other than the manufacturer's std. geometry, esp. when nuclides that emit low-energy radiations are involved.

AN 2002:525455 CAPLUS

DN 138:326501

TI Experimental investigation of dose calibrator response for 125I brachytherapy solutions contained in 5 mL plastic syringes and 2 mL conical glass v-vials as a function of filling mass

AU Zimmerman, B. E.; Cessna, J. T.; Dorton, J. A.

CS Physics Laboratory, National Institute of Standards and Technology, Gaithersburg, MD, 20899-8462, USA

SO Medical Physics (2002), 29(7), 1547-1555
CODEN: MPHYA6; ISSN: 0094-2405

PB American Institute of Physics

DT Journal

LA English

RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2003 ACS on STN

AB This paper compares exptl. measured and calcd. dose-rate distributions for a novel 125I liq.-filled brachytherapy balloon applicator (the GliaSite RTS), designed for the treatment of malignant brain-tumor resection-cavity margins. This work is intended to comply with the American Assocn. of Physicists in Medicine (AAPM) Radiation Therapy Committee's recommendations [Med. Phys. 25, 2269-2270(1998)] for dosimetric characterization of low-energy photon interstitial brachytherapy sources. Abs. low dose-rate radiochromic film (RCF) dosimetry measurements were performed in coronal planes about the applicator. The applicator was placed in a solid H2O phantom, machined to conform to the inflated applicator's surface. The results were used to validate the accuracy of Monte Carlo photon transport (MCPT) simulations and a point-source dose-kernel algorithm in predicting dose to H2O. The abs. activity of the 125I soln. was detd. by intercomparing a National Institute of Stds. and Technol. (NIST) 125I std. with a known mass of radiotherapy soln. (**Iotrex**) in an identical vial and geometry. For the 2 films not in contact with applicator, the av. agreement between RCF and MCPT (specified as the mean abs. deviation in successive 4 mm rings) is within .+-.5% at distances 0.2-25 mm from the film centers. For the 2 films touching the catheter, the mean agreement was .+-.14.5% and 7.5% near the balloon surface but improving to 7.5% and 6% by 3.5 mm from the surface. These errors, as large as 20% in isolated pixels, are likely due to trim damage, 125I contamination, and poor conformance with the balloon. At larger distances where the radiation doses were very low, the obsd. discrepancies were significantly larger than expected. The authors hypothesize that they are due to a dose-rate dependence of the RCF response. A 1%-10% av. difference between a simple 1-dimensional path-length semiempirical

- dose-kernel model and the MCPT calcns. was obsd. over clin. relevant distances.

AN 2001:80074 CAPLUS
DN 134:301983
TI Experimental validation of dose calculation algorithms for the GliaSite RTS, a novel 125I liquid-filled balloon brachytherapy applicator
AU Monroe, J. I.; Dempsey, J. F.; Dorton, J. A.; Mutic, S.; Stubbs, J. B.; Markman, J.; Williamson, J. F.
CS Radiation Oncology Center, Washington University Medical Center, St. Louis, MO, 63110, USA
SO Medical Physics (2001), 28(1), 73-85
CODEN: MPHYA6; ISSN: 0094-2405
PB American Institute of Physics
DT Journal
LA English
RE.CNT 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2003 ACS on STN
AB **Iotrex** is an aq. radiotherapy soln. contg. Na 3-(125I)iodo-4-hydroxybenzenesulfonate (125I-HBS), which is used as the radiation source for the brachytherapy of resected of brain tumor cavity margins with the GliaSite catheter. During routine clin. use of this brachytherapy applicator and radiation source, .apprx.0.1% of the afterloaded **Iotrex** will diffuse through the GliaSite balloon. The purpose was to assess the radiation doses to normal organs under routine clin. use of the GliaSite. 5 Groups of rats received intracerebral injections of an 131I-HBS soln. (131I used as a surrogate for 125I in the synthesis of 125I-HBS) with one group sacrificed at 15 min, 30 min, 1 h, 2 h and 4 h post-administration. Urine was collected and activity retention in numerous organs was measured. The biodistribution data were used to est. radiation doses to normal organs of the Ref. Adult Male and Female phantoms. Radioactivity was rapidly and completely cleared from the brain (98% cleared by 2 h) and total body (urinary clearance; 93% @ 2 h). No organ retained >0.7% of the radioactivity at 4 h. For 100% loss of the radiotherapy soln. from the balloon catheter (device failure), all organs would receive less than 100 mGy (10 rad), except the bladder wall (2800 mGy, 280 rad), uterus (130 mGy, 13 rad) and distal colon (270 mGy, 27 rad). Under normal conditions, all organ doses are 1000-fold lower (<3 mGy or 0.3 rad). Under routine clin. conditions, the radiation doses to normal organs are inconsequential. Should the max. clin. load of **Iotrex** (16.7 GBq of125I) be released intracerebrally, the radiation doses to all organs would be below the thresholds for deterministic effects.
AN 2001:35366 CAPLUS
DN 135:149233
TI Biodistribution and dosimetry of an aqueous solution containing sodium 3-(125I)iodo-4-hydroxybenzensulfonate (**Iotrex**) for brachytherapy of resected malignant brain tumors
AU Stubbs, James B.; Strickland, Alan D.; Frank, R. Keith; Simon, Jaime; McMillan, Kenneth; Williams, Jeffery A.
CS Proxima Therapeutics, Inc., Alpharetta, GA, 30005, USA
SO Cancer Biotherapy & Radiopharmaceuticals (2000), 15(6), 645-656
CODEN: CBRAFJ; ISSN: 1084-9785
PB Mary Ann Liebert, Inc.
DT Journal
LA English
RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> S iodo-4-hydroxybenzensulfonate
47563 IODO
4762592 4
3 HYDROXYBENZENSULFONATE
L3 1 IODO-4-HYDROXYBENZENSULFONATE
(IODO(W)4(W)HYDROXYBENZENSULFONATE)

=> D ABS BIB

[redacted]

L3 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN

AB Iotrex is an aq. radiotherapy soln. contg. Na 3-(125I)iodo-4-hydroxybenzenesulfonate (125I-HBS), which is used as the radiation source for the brachytherapy of resected of brain tumor cavity margins with the GliaSite catheter. During routine clin. use of this brachytherapy applicator and radiation source, .apprx.0.1% of the afterloaded Iotrex will diffuse through the GliaSite balloon. The purpose was to assess the radiation doses to normal organs under routine clin. use of the GliaSite. 5 Groups of rats received intracerebral injections of an 131I-HBS soln. (131I used as a surrogate for 125I in the synthesis of 125I-HBS) with one group sacrificed at 15 min, 30 min, 1 h, 2 h and 4 h post-administration. Urine was collected and activity retention in numerous organs was measured. The biodistribution data were used to est. radiation doses to normal organs of the Ref. Adult Male and Female phantoms. Radioactivity was rapidly and completely cleared from the brain (98% cleared by 2 h) and total body (urinary clearance; 93% @ 2 h). No organ retained >0.7% of the radioactivity at 4 h. For 100% loss of the radiotherapy soln. from the balloon catheter (device failure), all organs would receive less than 100 mGy (10 rad), except the bladder wall (2800 mGy, 280 rad), uterus (130 mGy, 13 rad) and distal colon (270 mGy, 27 rad). Under normal conditions, all organ doses are 1000-fold lower (<3 mGy or 0.3 rad). Under routine clin. conditions, the radiation doses to normal organs are inconsequential. Should the max. clin. load of Iotrex (16.7 GBq of125I) be released intracerebrally, the radiation doses to all organs would be below the thresholds for deterministic effects.

AN 2001:35366 CAPLUS

DN 135:149233

TI Biodistribution and dosimetry of an aqueous solution containing sodium 3-(125I)**iodo-4-hydroxybenzensulfonate** (Iotrex) for brachytherapy of resected malignant brain tumors

AU Stubbs, James B.; Strickland, Alan D.; Frank, R. Keith; Simon, Jaime; McMillan, Kenneth; Williams, Jeffery A.

CS Proxima Therapeutics, Inc., Alpharetta, GA, 30005, USA

SO Cancer Biotherapy & Radiopharmaceuticals (2000), 15(6), 645-656
CODEN: CBRAFJ; ISSN: 1084-9785

PB Mary Ann Liebert, Inc.

DT Journal

LA English

RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=>